

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number  
**WO 2005/080007 A1**

(51) International Patent Classification<sup>7</sup>: **B05C 11/08**,  
C23F 1/00, 1/08, H01L 21/304, 21/306, 21/68

(21) International Application Number:  
PCT/JP2005/003423

(22) International Filing Date: 23 February 2005 (23.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-047358 24 February 2004 (24.02.2004) JP  
2004-143379 13 May 2004 (13.05.2004) JP  
2004-190474 28 June 2004 (28.06.2004) JP

(71) Applicant (for all designated States except US): **EBARA CORPORATION** [JP/JP]; 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, 1448510 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KAJITA, Shinji**

[JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, 1448510 (JP). **KATAKABE, Ichiro** [JP/JP]; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo, 1448510 (JP).

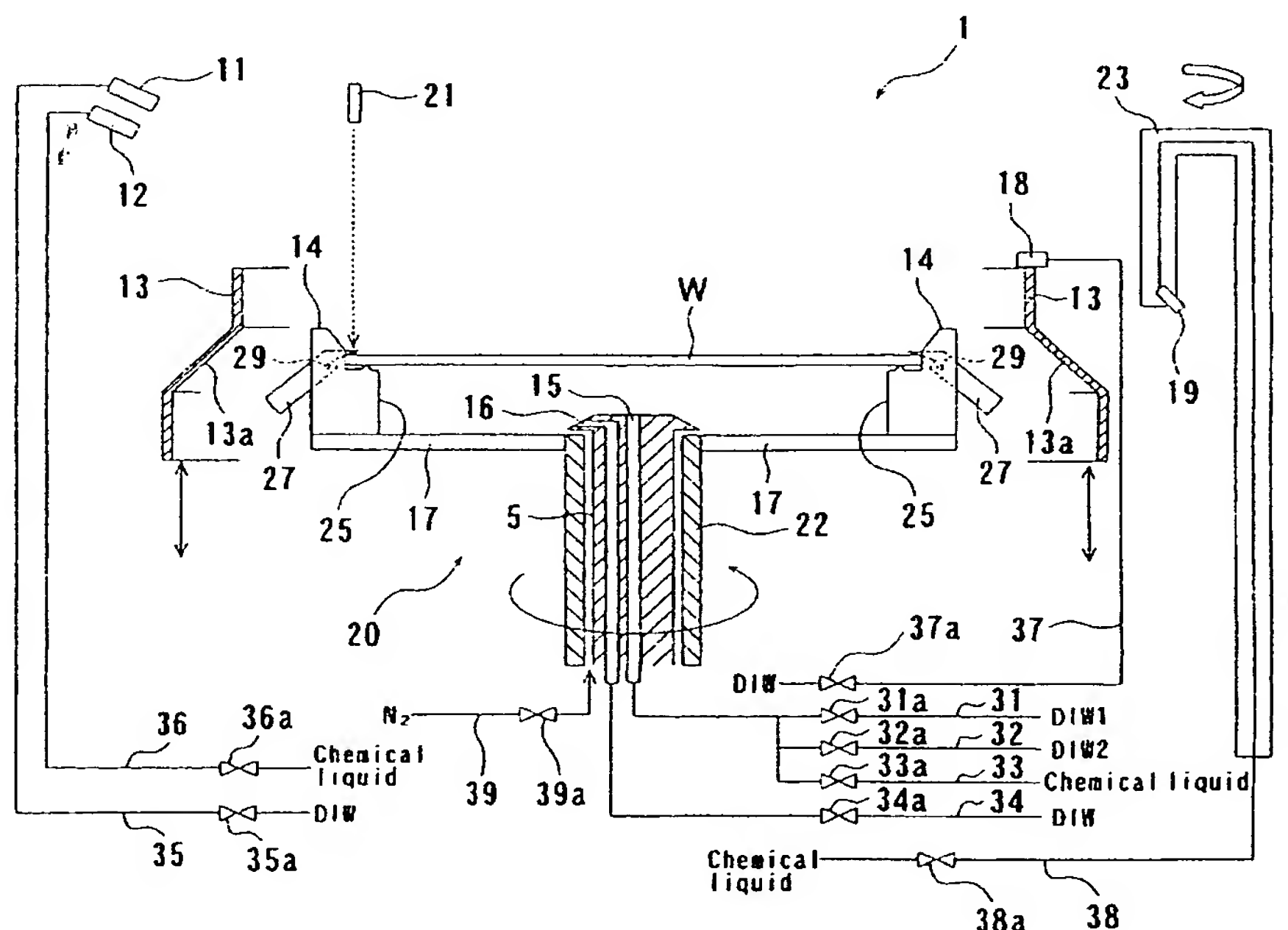
(74) Agents: **WATANABE, Isamu** et al.; GOWA Nishi-Shinjuku 4F, 5-8, Nishi-Shinjuku 7-chome, Shinjuku-ku, Tokyo, 1600023 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AF, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: SUBSTRATE PROCESSING APPARATUS AND METHOD



(57) Abstract: The substrate processing apparatus has substrate holding mechanisms (14) for holding the substrate (W) under a holding force which is changed according to a rotational speed of the substrate holding mechanisms (14), a substrate rotation mechanism (22) for rotating the substrate holding mechanisms (14) to rotate the substrate (W) held by the substrate holding mechanisms (14), and a treatment liquid supply mechanism (12, 15, 19) for supplying a treatment liquid to a desired portion of the substrate (W) held by the substrate holding mechanisms (14).



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.